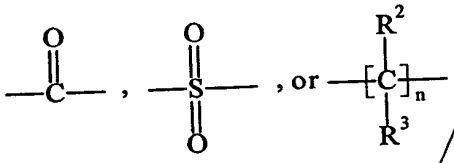
What is claimed is:

1. A vasoactive peptide having the general formula:

$$R^1\text{-}X\text{-}Z$$

wherein Z is a vasoactive peptide, R1 is an organic group  , and wherein R2 and R3 are independently H or an organic group and n is a whole integer between 1 and 10.

2. The peptide of Claim 1 wherein Z is a peptide fragment of at least 15 amino acids from CGRP.

3. The peptide of Claim 2 wherein Z comprises the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2.

4. The peptide of Claim 2 wherein Z is an antagonist of human CGRP.

5. The peptide of Claim 2 wherein Z is an antagonist of α-CGRP or β-CGRP.

6. The peptide of Claim 1 wherein Z is a CGRP antagonist peptide fragment selected from the group consisting of amylin, CGRP and adrenomedullin.

7. The peptide of Claim 5 wherein Z comprises the amino acid sequence of SEQ ID NOS:6-17 and 23.

8. The peptide of Claim 5 wherein Z comprises the amino acid sequence of SEQ ID NOS 18-22.

9. The peptide of Claim 1 wherein R^1 is an aromatic group, a heterocyclic group or an alkyl group and R^2 and R^3 are independently H, an aromatic group or an alkyl group.

10. The peptide of Claim 9 wherein R^1 is a C1-C4 alkyl group.

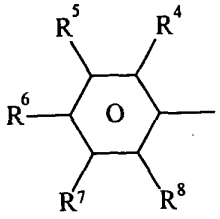
11. The peptide of Claim 10 wherein R^1 is a fluoroalkyl.

12. The peptide of Claim 10 wherein R^2 and R^3 are independently H, a C1-C4 alkyl group or a phenyl moiety.

13. The peptide of Claim 10 wherein R^1 is a C5-C10 aromatic group, a C5-C9 heterocyclic group or a C1-C4 alkyl group.

14. The peptide of Claim 13 wherein R_2 and R_3 are independently H or a C5-C10 aromatic group or a C1-C4 alkyl group.

15. The peptide of Claim 9 wherein R^1 has the general formula:

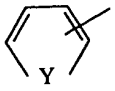


and wherein R^4-R^8 are each independently selected from the group of H, fluoro, chloro, bromo, iodo, nitro, nitrile (cyano), amino, N-methyl amino, N,N-dimethyl amino, hydroxy, methoxy, thiomethoxy (S-methyl), methyl, ethyl, n-propyl, iso-propyl, n-butyl,

iso-butyl, sec-butyl, tert-butyl, trifluoromethyl, trifluoromethoxy, vinyl, acetamido, phenyl, toluyl, and methoxyphenyl.

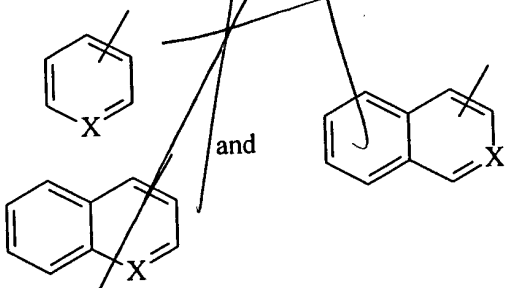
16. The peptide of Claim 15 wherein R^6 is trifluoromethyl and R^4, R^5, R^7 and R^8 are F.

17. The peptide of Claim 15 wherein R^1 is



and wherein Y is selected from the group consisting of O, NH, and S.

18. The peptide of Claim 9 wherein R^1 is selected from the group consisting of:



and wherein X is selected from the group consisting of C and N.

19. The peptide of Claim 15 wherein the peptide is a CGRP antagonist and a peptide or polypeptide of at least consecutive 15 amino acids selected from a protein from the group consisting of N-α-benzoyl-α-CGRP, N-α-benzyl-β-CGRP, N-α-benzoyl-β-CGRP and N-α-benzyl-α CGRP, dibenzyl-h-α-CGRP and dibenzyl-h-β-CGRP.

20. A method for inhibiting CGRP binding to one or more CGRP receptors comprising the step of contacting an effective amount of a composition comprising a peptide according to Claim 4 with a CGRP receptor.

21. The method of Claim 20 wherein the CGRP receptor is on a cell.

Sub A6

22. The method of Claim 20 wherein the CGRP receptor is cell free.

3 ~~23~~. The method of Claim ~~21~~ 2 wherein the cell is in culture.

4 ~~24~~. The method of Claim ~~21~~ 2 wherein the cell is part of a tissue.

5 ~~25~~. The method of Claim ~~21~~ 2 wherein the cell is in an animal.

6 ~~26~~. The method of Claim ~~25~~ 5 wherein the animal is a human.

27. An assay for identifying CGRP antagonists comprising the step of:

combining a peptide according to Claim 4 with at least one CGRP receptor and a test CGRP antagonist with at least one CGRP receptor; and

comparing binding of the peptide to the CGRP receptor with binding of the test antagonist to the CGRP receptor, wherein improved binding of the test antagonist to the CGRP receptor in the presence of the peptide of Claim 4 identifies a candidate CGRP antagonist.

28. A method for identifying a CGRP receptor in a cell sample comprising the steps of:

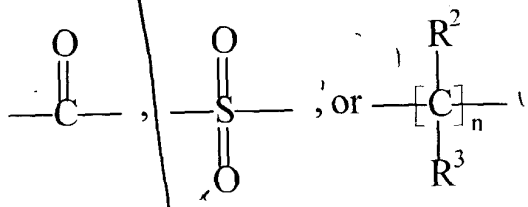
contacting a peptide of Claim 4 with a cell sample to detect binding of the peptide to the cell; and

isolating one or more receptors binding the peptide to the cell.

29. A method for inhibiting CGRP binding to one or more CGRP receptors comprising contacting a CGRP receptor with an effective amount of a composition comprising a peptide having the general formula:

$$R^1\text{-}X\text{-}Z$$

wherein Z is a vasoactive peptide, R^1 is an organic group, X is



and wherein R^2 and R^3 are independently H or an organic group and n is a whole integer between 1 and 10.

30. The method of Claim 29 wherein Z is a peptide fragment of at least 15 amino acids from CGRP.

31. The method of Claim 30 wherein Z comprises the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2.

32. The method of Claim 30 wherein Z is an antagonist of human CGRP.

33. The method of Claim 30 wherein Z is an antagonist of α-CGRP or β-CGRP.

34. The method of Claim 33 wherein Z comprises the amino acid sequence of SEQ ID NOS:6-17 and 23.

35. The method of Claim 33 wherein Z comprises the amino acid sequence of SEQ ID NOS:18-22.

14 1
~~36.~~ The method of Claim ~~29~~ wherein Z is a CGRP antagonist peptide fragment selected from the group consisting of amylin, CGRP and adrenomedullin.

15 1
~~37.~~ The method of Claim ~~29~~ wherein R^1 is an aromatic group, a heterocyclic group or an alkyl group and R^2 and R^3 are independently H, an aromatic group or an alkyl group.

16 15
~~38.~~ The method of Claim ~~37~~ wherein R^1 is a C1-C4 alkyl group.

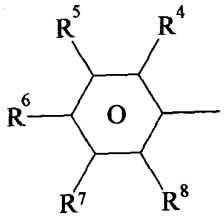
17 16
~~39.~~ The method of Claim ~~38~~ wherein R^1 is a fluoroalkyl.

18 16
~~40.~~ The method of Claim ~~38~~ wherein R^2 and R^3 are independently H, a C1-C4 alkyl group or a phenyl moiety.

19 16
~~41.~~ The method of Claim ~~38~~ wherein R^1 is a C5-C10 aromatic group, a C5-C9 heterocyclic group or a C1-C4 alkyl group.

20 19
~~42.~~ The method of Claim ~~41~~ wherein R^2 and R^3 are independently H or a C5-C10 aromatic group or a C1-C4 alkyl group.

21 15
~~43.~~ The method of Claim ~~37~~ wherein R^1 has the general formula:

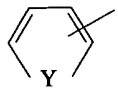


and wherein R^4-R^8 are each independently selected from the group of H, fluoro, chloro, bromo, iodo, nitro, nitrile (cyano), amino, N-methyl amino, N,N-

dimethyl amino, hydroxy, methoxy, thiomethoxy (S-methyl), methyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl, tert-butyl, trifluoromethyl, trifluoromethoxy, vinyl, acetamido, phenyl, toluyl, and methoxyphenyl.

22 21
44. The method of Claim 43 wherein R^6 is trifluoromethyl and R^4, R^5, R^7 and R^8 are F.

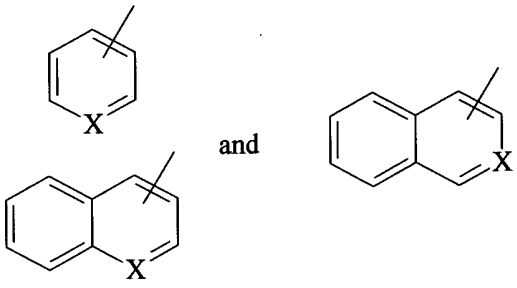
45. The method of Claim 43 wherein R^1 is



and wherein Y is selected from the group consisting of O, NH, and S.

46. The method of Claim 43 wherein the peptide is a CGRP antagonist and a peptide or polypeptide of at least 15 consecutive amino acids selected from a protein from the group consisting of N-α-benzoyl-α-CGRP, N-α-benzyl-β-CGRP, N-α-benzoyl-β-CGRP and N-α-benzyl-α CGRP, dibenzyl-h-α-CGRP and dibenzyl-h-β-CGRP.

25 15
47. The method of Claim 37 wherein R^1 is selected from the group consisting of:



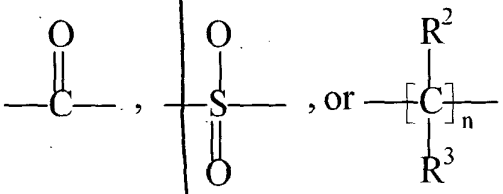
and wherein X is selected from the group consisting of C and N.

48. An assay for identifying CGRP antagonists comprising:

combining a peptide having the general formula:

R^1-X-Z

wherein Z is a vasoactive peptide, R^1 is an organic group, X is



and wherein R^2 and R^3 are independently H or an organic group and n is a whole integer between 1 and 10, with at least one CGRP receptor and a test CGRP antagonist with at least one CGRP receptor; and

comparing binding of the peptide to the CGRP receptor with binding of the test antagonist to the CGRP receptor, wherein improved binding of the test antagonist to the CGRP receptor in the presence of the peptide identifies a candidate CGRP antagonist.

49. The assay of claim 48 wherein Z is a peptide fragment of at least 15 amino acids from CGRP.

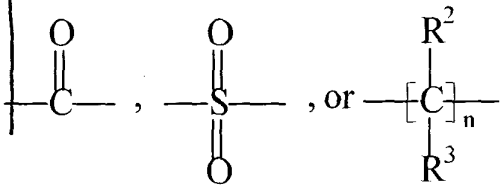
50. The assay of claim 49 wherein Z is an agatonist of human CGRP.

51. A method for identifying a CGRP receptor in a cell sample comprising:

contacting a peptide having the general formula:

R^1-X-Z

wherein Z is a vasoactive peptide, R^1 is an organic group, X is



and wherein R^2 and R^3 are independently H or an organic group and n is a whole integer between 1 and 10, with a cell sample to detect binding of the peptide to the cell; and

isolating one or more receptors binding the peptide to the cell.

52. The assay of claim 51 wherein Z is a peptide fragment of at least 15 amino acids from CGRP.

53. The assay of claim 51 wherein Z is an agatonist of human CGRP.